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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,143	04/26/2006	Shigeo Nonoyama	286090US26PCT	4073
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
FLYNN, KEVIN H				
ART UNIT		PAPER NUMBER		
3628				
NOTIFICATION DATE		DELIVERY MODE		
11/13/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/577,143

**Applicant(s)**

NONOYAMA ET AL.

**Examiner**

KEVIN FLYNN

**Art Unit**

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/ISD)  
Paper No(s)/Mail Date 04/26/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**Status of Claims**

1. This action is in reply to the application filed on 26 April 2006.
2. Claims 1-20 are currently pending and have been examined.

***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1, 6, 11, and 16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claims 1, 6, 11, and 16 rejected as indefinite. The limitation(s) "after introducing cogeneration" is indefinite because it is unclear whether "introducing" entails installation and use of a cogeneration system or mere use of an existing cogeneration system at a certain point in time. For the purpose of this examination, both interpretations shall be considered.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-2, 6-7, 11-12, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pak-Wah Or et al. (U.S. 2002/0178047) in view of Ishimaru et al. (U.S. 5,432,710) in view of in view of Fukushima et al. (US 2002/0035496 A1) in view of (Johnson et al. (Johnson, Richard A. and Remer, Donald S.; Economics for Small Scale Package Cogeneration: A Case Study; The Engineering Economist; Vol. 34 – No. 3, Spring 1989, p. 205-253).

**Claim 1, 6:**

Pak-Wah Oh, as shown discloses the following limitations:

- *a step for transmitting measured data of the power consumption volume and the gas consumption volume by a transmitter provided in the facility (Pak-Wah Or ¶ 0016),*
- *a step for receiving the data transmitted from the transmitter by a receiver (Pak-Wah Or ¶ 0016),*

Regarding the limitations:

- *a step for measuring power consumption volume in the facility by a wattmeter,*
- *a step for measuring gas consumption volume in the facility by a gas meter,*

Pak-Wah Or, in at least ¶ 0016, discloses analyzing energy consumption, but does not specifically disclose a wattmeter or gas meter. However, Ishimaru, in at least col. 8, lines 11-13 discloses a wattmeter, and col. 8, lines 19-21 discloses a gas meter. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of measuring energy usage with the technique of using wattmeters and gas meters in order to receive the specific energy readings needed.

Regarding the limitation:

- *a step for estimating a cost after introducing cogeneration in the facility by an estimation means from the received data at the receiver.*

Pak-Wah Or, in at least ¶ 0026 and Figs. 7 and 8, discloses the cost savings of switching types of energy as well as use of on-site generators, but does not specifically disclose cogeneration. However, Ishimaru,

in at least col. 2, line 45-col. 4, line 4; col. 9, lines 30-42, disclose cost savings of using a cogenerator concerning electricity and gas usage. In addition, Fukushima, in at least ¶ 0028 discloses determining a running cost of energy-saving utilities. Moreover, Johnson, in at least p. 207, ¶ 1, discloses comparing the cost of installing a cogenerator versus purchasing all power from a utility. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of determining saving on utilities with the technique of using savings of a cogeneration system because a "cogeneration system has a high energy use efficiency to provide the advantages of low energy cost, reduced contract demand and leveled quantity of electricity" (Ishimaru col. 1, lines 53-56).

**Claim 11, 16:**

Pak-Wah Oh, as shown discloses the following limitations:

- *a step for transmitting measured data of the power consumption volume and the gas consumption volume by a transmitter provided in the facility (Pak-Wah Or ¶ 0016),*
- *a step for receiving the data transmitted from the transmitter by a receiver (Pak-Wah Or ¶ 0016),*
- *a step for outputting the cost estimation result by an output means (Pak-Wah Or ¶ 0026, Fig. 8),*
- *wherein the output means outputs the cost estimation result in a state of capability of being browsed by a salesperson selling cogeneration equipment to the facility, or by an introduction decision maker concerned in decision of a cogeneration equipment introduction to the facility (Pak-Wah Or ¶ 0019).*

Regarding the limitations:

- *a step for measuring power consumption volume in the facility by a wattmeter,*
- *a step for measuring gas consumption volume in the facility by a gas meter,*

Pak-Wah Or, in at least ¶ 0016, discloses analyzing energy consumption, but does not specifically disclose a wattmeter or gas meter. However, Ishimaru, in at least col. 8, lines 11-13 discloses a wattmeter, and col. 8, lines 19-21 discloses a gas meter. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of measuring energy usage with the technique of using wattmeters and gas meters in order to receive the specific energy readings needed.

Regarding the limitation:

- *a step for estimating a cost after introducing cogeneration in the facility by an estimation means from the received data at the receiver.*

Pak-Wah Or, in at least ¶ 0026 and Figs. 7 and 8, discloses the cost savings of switching types of energy as well as use of on-site generators, but does not specifically disclose cogeneration. However, Ishimaru, in at least col. 2, line 45-col. 4, line 4; col. 9, lines 30-42, disclose cost savings of using a cogenerator concerning electricity and gas usage. In addition, Fukushima, in at least ¶ 0028 discloses determining a running cost of energy-saving utilities. Moreover, Johnson, in at least p. 207, ¶ 1, discloses comparing the cost of installing a cogenerator versus purchasing all power from a utility. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of determining saving on utilities with the technique of using savings of a cogeneration system because a "cogeneration system has a high energy use efficiency to provide the advantages of low energy cost, reduced contract demand and leveled quantity of electricity" (Ishimaru col. 1, lines 53-56).

**EXAMINER'S NOTE:** The limitation "*wherein the output means outputs the cost estimation result in a state of capability of being browsed*", as phrased, is merely a statement of intended use and is only afforded patentable weight to the extent that it imparts structural limitations on the invention, which are met by the teachings of Pak-Wah Or ¶ 0019.

**Claim 2, 7:**

Pak-Wah Or/Ishimaru/Johnson/Fukushima, as shown above, discloses the limitations of claim 1, 6. In addition, Fukushima also discloses the following limitation(s):

- *a step for carrying out a year-through cost estimation by a year-through cost estimation means from the result of the estimation by the estimation means* (Fukushima ¶ 0028 "predetermined period").

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of saving on utilities with the technique of using a specific time period so the operator can

understand the costs "for each of various cases based on the combination of the operating periods of the proposed energy-saving facilities" (Fukushima ¶ 0028).

**Claim 12, 17:**

Pak-Wah Or/Ishimaru/Johnson/Fukushima, as shown above, discloses the limitations of claim 1, 6. In addition, Fukushima also discloses the following limitation(s):

- *a step for carrying out a year-through cost estimation by a year-through cost estimation means from the result of the estimation by the estimation means* (Fukushima ¶ 0028 "predetermined period").
- *wherein the output means outputs a result of the year-through cost estimation in a state of capability of being browsed by the salesperson or the introduction decision maker* (Fukushima ¶ 0028).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of saving on utilities with the technique of using a specific time period so the operator can understand the costs "for each of various cases based on the combination of the operating periods of the proposed energy-saving facilities" (Fukushima ¶ 0028).

9. Claims 3, 8, 13, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pak-Wah Or/Ishimaru/Johnson/Fukushima in view of Yoshinaga et al. (US 5,764,523).

**Claim 3, 8, 13, 18:**

Pak-Wah Or/Ishimaru/Johnson/Fukushima, as shown above, discloses the limitations of claim 1, 6, 11, 16. Pak-Wah Or/Ishimaru/Johnson/Fukushima does not specifically disclose the following limitation(s), but Yoshinaga, does:

- *wherein the wattmeter is a single-phase two-wire type* (Yoshinaga col. 17, lines 21-27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include single-phase two wire type wattmeter as taught by Yoshinaga (single-phase two wire type wattmeter) in the

system of Pak-Wah Or/Ishimaru/Johnson/Fukushima (wattmeter), since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

10. Claims 4, 9, 14, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pak-Wah Or/Ishimaru/Johnson/Fukushima in view of Hansell (US 5,528,233).

**Claim 4, 9, 14, 19:**

Pak-Wah Or/Ishimaru/Johnson/Fukushima, as shown above, discloses the limitations of claim 1, 6, 11, 16. Pak-Wah Or/Ishimaru/Johnson/Fukushima does not specifically disclose the following limitation(s), but Hansell, does:

- wherein the transmitter is a radio transmitter (Hansell col. 3, lines 51-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a single-phase two wire type wattmeter as taught by Hansell (radio transmission of meter data) in the system of Pak-Wah Or/Ishimaru/Johnson/Fukushima (transmission of meter data), since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

11. Claims 5, 10, 15, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pak-Wah Or/Ishimaru/Johnson/Fukushima in view of Budike (US 6,311,105 B1).

**Claim 5, 10, 15, 20:**

Pak-Wah Or/Ishimaru/Johnson/Fukushima, as shown above, discloses the limitations of claim 1, 6, 11, 16. In addition, Pak-Wah Or discloses the following limitation:



Art Unit: 3628

- *by the transmitter, transmitting out the data received at the local receiver together with the data of the gas consumption volume measured at the gas meter (Pak-Wah Or ¶ 0016).*

Pak-Wah Or/Ishimaru/Johnson/Fukushima does not specifically disclose the following limitation(s), but Budike, does:

- *wherein a local transmitter and a local receiver are provided in the facility in addition to the transmitter (Budike col. 7, lines 5-11), further comprising*
- *locally transmitting the data of the power consumption volume measured at the wattmeter by the local transmitter (Budike col. 7, lines 5-11),*
- *locally receiving the data transmitted from the local transmitter by the local receiver (Budike col. 7, lines 5-11), and*

It would have been obvious to one of ordinary skill in the art at the time of the invention to include local aggregation of data as taught by Budike (local aggregation of data) in the system of Pak-Wah Or/Ishimaru/Johnson/Fukushima (transmission of data), since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abe et al. (US 2006/0116795 A1); Zaloom (US 6,366,889); Smith et al. (US 6,785,592 B1); Norton (US 5,903,060).

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Kevin H. Flynn** whose telephone number is **571.270.3108**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **John W. Hayes** can be reached at **571.272.6708**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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/Kevin H. Flynn/  
Examiner, Art Unit 3628  
5 November 2008

/JOHN W HAYES/  
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